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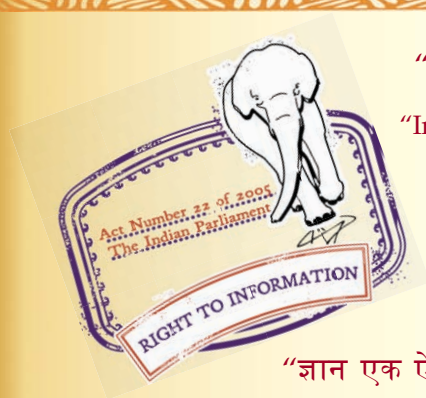
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IS 9004 (1978, Reaffirmed 1984): Specification for Tamarind Seed Testa. UDC 675.041 : 633.875.4



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Bhartrhari—Nitiśatakam

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"Reaffirmed-1984"

IS : 9004 - 1978

Indian Standard
SPECIFICATION FOR TAMARIND SEED TESTA

UDC 675.041 : 633.875.4



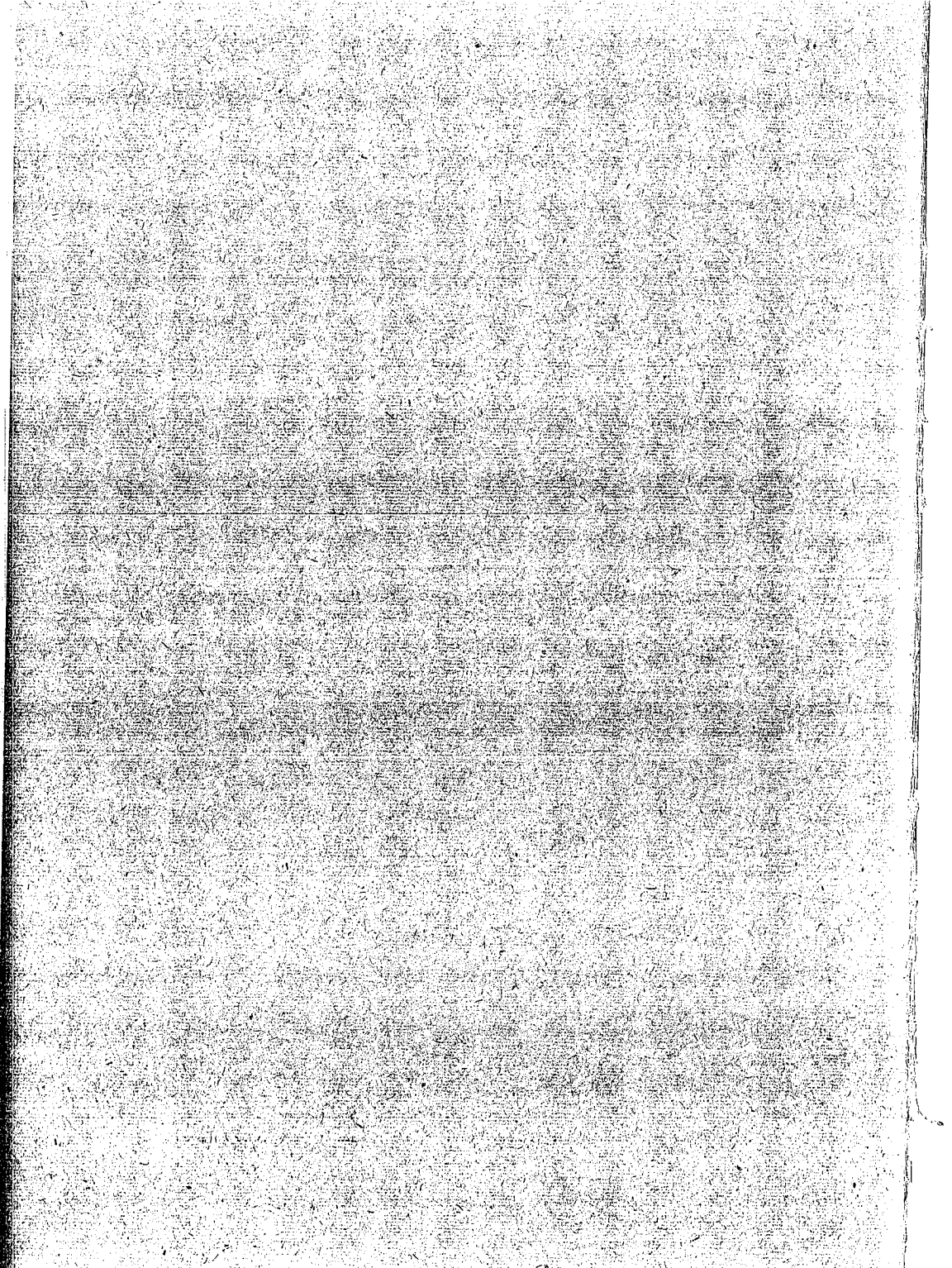
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SPECIFICATION FOR TAMARIND SEED TESTA

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(Continued on page 2)

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(Continued from page 1)

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Indian Standard

SPECIFICATION FOR TAMARIND SEED TESTA

0. FOREWORD

0.1 This Indian Standard was adopted by the Indian Standards Institution on 20 November 1978, after the draft finalized by the Tanning Materials and Allied Products Sectional Committee had been approved by the Chemical Division Council.

0.2 Tamarind (*Tamarindus indicus*), Linn. fam. *Leguminosae*, known as *Imli*, *Amlī* (Hindi), *Hunase* (Kannada), *Chirch* (Marathi), *Puli* (Tamil), and *Chintā* (Telugu) is an item of common use in our country. The tree is large and evergreen, having rather small pink yellow striped flowers, small acid leaflets. The pods flower from February to April. The bark is dark grey and the wood is hard and heavy. It occurs in all plains, both cultivated and self-grown along roads and avenues and in villages.

0.3 Tamarind seed testa is a by-product of tamarind seed processing industry. A number of units of India are engaged in processing tamarind seeds and they are mostly located in Chenganchery in Kerala, Kakinada and Vizianagaram in Andhra Pradesh and in many other parts of India. Tamarind collection falls under minor forest produce and normally collected by tribal people in forest areas.

0.3.1 Tamarind seed testa, used alone, yields leather of dark colour. It is used in conjunction with myrobalan and other hydrolysable tannins in the processing of heavy leathers. Tamarind seed testa, during extraction, gives rise to problem of swelling.

0.4 Tamarind seeds are processed in two ways to obtain tamarind seed kernels and testa. In the roasting process, the seeds are first sieved and then roasted either by steam or in mild steel vessel in which sand is placed. Roasting can also be done in a drum by heating from underneath. Then the seeds are disintegrated and the kernels and testa separated. In processing without roasting, all operations are the same except that the seeds are not roasted.

0.5 For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS: 2-1960*. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

*Rules for rounding off numerical values (*revised*).

1. SCOPE

1.1 This standard prescribes the requirements and methods of sampling and test for tamarind seed testa for tanning industry.

2. TERMINOLOGY

2.1 For the purpose of this standard, definitions given in IS : 1640-1960* shall apply.

3. REQUIREMENTS

3.1 The material shall comply with the requirements given in Table 1 when tested according to the methods prescribed in col 4 of Table 1.

TABLE 1 REQUIREMENTS FOR TAMARIND SEED TESTA

Sl No.	CHARACTERISTIC	REQUIREMENT	METHOD OF TEST, REF TO CL No. IN IS : 5466-1969*
(1)	(2)	(3)	(4)
i)	Moisture, percent by mass, <i>Max</i>	12	6
ii)	†Non-tans, percent by mass, <i>Max</i>	15	9
iii)	†Tannins, percent by mass, <i>Min</i>	20	10
iv)	pH of analytical strength solution, <i>Min</i>	4.0	12
v)	Colour:		
	a) Yellow/red, <i>Min</i>	0.9	13
	b) Red, <i>Max</i>	11.0	13

*Methods of test for vegetable tanning materials.

†Calculated on moisture free basis.

4. PACKING AND MARKING

4.1 **Packing** — Tamarind seed testa shall be packed in gunny bags.

4.2 **Marking** — Packages shall be marked with the following information:

- Name of the material;
- Net mass of the material;
- Supplier's name or recognized trade-mark, if any; and
- Date of packing.

*Glossary of terms relating to hides, skins and leathers.

4.2.1 The packages may also be marked with the ISI Certification Mark.

NOTE—The use of the ISI Certification Mark is governed by the provisions of the Indian Standards Institution (Certification Marks) Act and the Rules and Regulations made thereunder. The ISI Mark on products covered by an Indian Standard conveys the assurance that they have been produced to comply with the requirements of that standard under a well-defined system of inspection, testing and quality control which is devised and supervised by ISI and operated by the producer. ISI marked products are also continuously checked by ISI for conformity to that standard as a further safeguard. Details of conditions under which a licence for the use of the ISI Certification Mark may be granted to manufacturers or processors, may be obtained from the Indian Standards Institution.

5. SAMPLING AND CRITERIA FOR CONFORMITY

5.1 Scale of Sampling — Representative samples of the material shall be drawn in accordance with Appendix A.

5.2 Number of Tests — Each test sample in the set shall be tested individually for all the requirements of this specification.

5.3 Criteria for Conformity — The lot shall be declared to conform to the requirements of this specification if each test sample in the set passes all the tests.

APPENDIX A

(Clause 5.1)

SAMPLING OF TAMARIND SEED TESTA

A-1. SCALE OF SAMPLING

A-1.1 Lot — In a single consignment tamarind seed testa collected and processed in the same period and of the same colour shall be grouped together to form a lot. A preliminary examination of all the gunny bags or containers is necessary to form homogeneous lots.

A-1.2 For ascertaining the conformity of the material to the requirements of this specification, each lot shall be considered separately. The number of containers or bags to be selected for this purpose shall depend on the size of the lot and shall be as given in Table 2. It is advisable to have lot sizes of not more than 30 tonnes.

A-1.3 The bags shall be selected at random from the lot. To ensure randomness of selection, use of random number tables (see IS : 4905-1968*)

*Methods for random sampling.

shall be made. In case random number tables are not available, the following procedure shall be adopted for drawing the samples:

Starting from any bag, count all the bags in the lot as 1, 2, 3, ..., etc, up to r and so on where r is the integral part of N/n . Every r th container thus counted shall be withdrawn to constitute the samples.

TABLE 2 NUMBER OF CONTAINERS TO BE SELECTED FOR SAMPLING

(Clause A-1.2)

NO. OF CONTAINERS IN THE LOT	NO. OF CONTAINERS TO BE SAMPLED
N	n
(1)	(2)
Up to 25	3
26 to 50	4
51 to 150	5
151 to 300	6
301 to 500	7
501 to 1 000	8

A-2. PREPARATION OF SAMPLES

A-2.1 The material shall be withdrawn from different positions of the selected bag(s). The total quantity from each bag selected shall be not less than 2 kg. The quantity drawn from each bag shall be divided into three parts, one for the purchaser, the second for the supplier and the third to be kept as a referee sample.

A-2.2 The three sets of test samples shall be kept in separate sample containers which shall be marked with relevant details of sampling.